

HFUS 3 BDU 012200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 032

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 2200Z 01 FEB 1984

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 31/2100
TO 01/2100Z: SOLAR ACTIVITY HAS BEEN MODERATE DURING THE PAST 24
HOURS. THE LARGEST EVENT WAS A SLOW RISE M1 EVENT WHICH BEGAN
AT 1914 AND WAS IN PROGRESS AT 2100Z. THIS RADIO-RICH EVENT
(1700 FLUX UNITS AT 10 CM AT 1956Z) ORIGINATED WITH A SINGLE
RIBBON FILAMENT ACTIVATION IN REGION 4398 (N14W68). THIS REGION
HAS REMAINED RELATIVELY STABLE IN WHITE LIGHT AND RETAINS ITS
BETA-GAMMA-DELTA MAGNETIC COMPLEXITY. REGION 4399 (N12W47) HAS
ALSO REMAINED STABLE IN WHITE LIGHT WITH BETA-GAMMA-DELTA
MAGNETIC COMPLEXITY, BUT HAS NOT PRODUCED ANY OPTICAL ACTIVITY
IN RECENT HOURS. REGION 4403 (N13W24) DOUBLED IN SIZE AND HAS
BECOME MAGNETICALLY COMPLEX (BETA-GAMMA). NEW REGION 4409
(S13E13) IS A SIMPLE A-TYPE SPOT.

*correction
made*

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE
MODERATE UNTIL REGIONS 4398 AND 4399 ROTATE BEYOND THE WEST
LIMB. REGION 4399 WILL BE APPROACHING LIMB PASSAGE ON THE LAST
DAY OF THE FORECAST PERIOD. IF DEVELOPMENT CONTINUES IN REGION
4403, ISOLATED MODERATE ACTIVITY COULD ORIGINATE THERE.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 31/2100Z TO 01/2100Z:
THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED TO ACTIVE FOR THE PAST
24 HOURS. GEOMAGNETIC CONDITIONS ARE SLOWLY DECLINING FROM THE
NEAR-STORM LEVELS OF THE LAST FEW DAYS.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS
EXPECTED TO BE UNSETTLED TO QUIET FOR THE NEXT TWO DAYS,
INCREASING TOWARD OCCASIONAL ACTIVE PERIODS ON THE LAST DAY OF
THE FORECAST PERIOD. GEOMAGNETIC ACTIVITY IS ANTICIPATED IN
RESPONSE TO A NEGATIVE POLARITY CORONAL HOLE NEAR NORTH 15
WHICH CROSSED THE SOLAR CENTRAL MERIDIAN ON 31 JANUARY.

III. EVENT PROBABILITIES 02 FEB-04 FEB

CLASS M 70/50/50

CLASS X 05/05/05

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 01 FEB 159

PREDICTED 02 FEB-04 FEB 140/120/100

90 DAY MEAN 01 FEB 102

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 31 JAN 021/022

ESTIMATED AFR/AP 01 FEB 016/020

PREDICTED AFR/AP 02 FEB-04 FEB 015/020-010/015-015/015

SOLTERWARN

BT